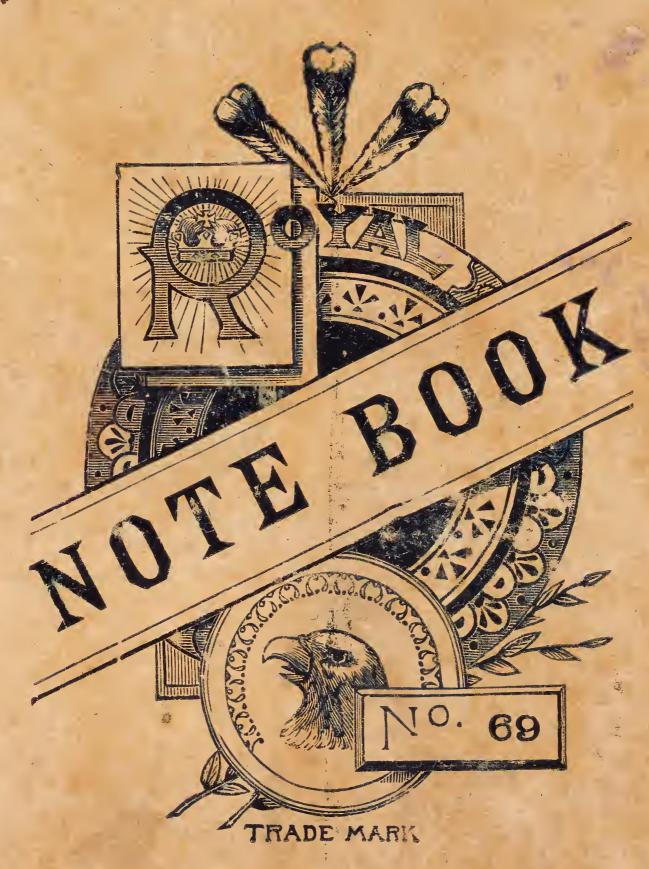
Holdman.
Mammal Holes.
Jan. 22d. 99ts.



Trena de alamos. near alamos. Tuna de Alamos, Sonora, Mexico. Jan. 2-#5. Dicotifles tajacu, Ocenis spannes on the lower stopes of the Suma. Odocorlens, Dur an not uneommen and are well dishibuted our the Suna. Scuring (13266;) Decuis spaningly in the thickets of sumi-tropied vegetation covering lower slopes of Suna-the part lying Telow the lower edge of the oaks, spenns philus macroups, decus spaningly and istuell distributed. Neoloma (13354) Lives about large rocks. Does not appear to pile up streks etc. as a protection to its surrow. Common among the oaks, Twee about the rocks, Fases of lies and other shelling Reitherdonlowings (13358) Fines in the gross among the oaks on hill slopes.

Tiena de alamoo. Heleromys (3356), a few specimens were lasten in the same situations as the precion, Thomomys species, sur signs were sun ashong the oaks. Figures. Ocens very spangly. Felis onea Said to range spaningly to the lot of The Suina Occurs spaningly. Felis concolor. Occurs spaningly. The Felis oneon. Typy are not Pelis spotted tigin cals are also rather common at least on the lower slopes of the mountains. Canis latians, Commen on lower slopes Enveyor a fur oceur at least on lower slopes. Said & ocen, Rasna naview, Occurs around Base of the Siena. Camoa, Camoa, Ris Mays. Sonora, Oct. 28 to Nov. 8th 1898 and Jan. 11-25-1899. and are rand to be not uncommon, Deestyles lajacu. Not-uncommon in the kells near leamon where they go un small parties of five Adocorlens Foeal name Furo" or " oma": Occius un small munders on the Jolanns between the Mays and yagui nous north & bamoa, This is the Black-tailed & pecus, Odocorleus whele tailed den are found rather spangly along the num and in the hills near Camoa, Mayo name mass!

Camoa, Journal hure lives the Footbills in hollow lites. They also make nexts of leaves among The Fanctus. They are rather weld and when one approaches the live in which they are they frequently former new down to the the bunk and If along the ground, at others limes they make their except by Junjary from hie to live formetimes they are found perched on a by Teerens, I found them Juding on the funt of the self cotton tree. These ogunes occured to de confined to the Joothells ave none are found I think abou The coast plane, Fremo Shelies macround (3403) Occurs rather spangly, Vary line en dunows along stone walls, trush Jeners and other Sheller, Spennophilus (3216) The small Themophile is apparently not common-at least not at at this season they are seldom seen. Thing lives in hobo in the ground among the eaching and marqueter along the Mays Run and are prototy zenerally higherfaled over the coast plain, Acoloma 13246) Hot runcommon, This species Fulds tage peles of streks etc. about its

Camoa. funow in thick clumps of cachines or other shormy vegetalien and about the Bases often of the mez queles. Sometimes en addition to a pule of sticks at the rane of a live there is another up among the Franches, Heals are Jequenty placed high up among The Franches of the by leanung or hecho" as if is called by The natives and several lines I saw the caught gly glumpour of the unal- outling among The Franches or on the nest. The both name of the rat is tori's Unychony, Rotunesmuse among the caluses and megquiles on the plans near Causa, Versmyseus (3228) Rathu common and well destributed on the plans and in the foot Tulls. Most abundant in the Joothies. where they love under the sheller of rocks etc. and Jud langely on seeds of a certain species of Phomomys (13220), Oceans rather spangly on the planes along the Mayo Runn. Depodormys (13155), Rather common in the more sandy parts I the plane and along the rune, Usually each annual appears to have several entrances to its Sunow and usually one or two

Camoa, runways lead out from each en leance for 6-18 yels, Sometimes there runnays lead to another hole several yels, away, Alleromys (3234), Oceus spaningly in wear patches and sheckets along the Mayo nine. Pergnachus. (13/60) The larger (of.) This species so rather common and generally distributed on the plant near Camag but is most abundant in weed paleties on sandy ground near the Mays nuer. They down mall holy which enter the open ground. Verognachus (3167) Vaken m same places Ex puelding Just is apparently less common, Malyo name Paros, (3345) (Jack) This species is not uncommon and es querally distributed on the plains and on the lower slopes of the Joothells but are most abundant along the Mayo Rune. They are as a mule not very wild and may easily be approached and shot. The ofecus has a peculiar habit when startled & mining If 8) Thowny the construction on sides and especially on hind quartero un a very conspicuous manner, Instead of running shaight away they usually lake a diagonal course and appear to conhact the dark fur on

Camoa. runf until it appears as a nanow dark stupe which is shongly drawn over to the side opposite the observer. at the same time the while for is drawn upward loward rump and thus rendered very conspecuous, Sometimes when altering its course so that the other side was exposed to the of seven To my view I saw the dach line jerkel over to the side opposile-me, Then on their forms no while fur us exposed to view by these raffely and even when crounched down and stew when feeding the white fur seems to be drawn down nearly out of over. It is only when startled or when in rapid motion that the while Jue becomes very conspicuous, On me or two oceasions of offered a nabby lake hus a while keps from near the road orde and stop remaining crouched but with the dark fur contracted auto a narrow line and the while fur on hund quarter drawn upward un the manun ahraly described, I spoke of this habit to a native and he said he had often noticed it also, I think I have noticed the same tof some

Camoa. some of the while orded I have noticed the same habit of the while-sided jack rabbils on the plans of the table land but do not thing they have developed the taket to the same entraordinary esting as the Alpens The rabbils Live, Mayo name Patu, (132/3), Duch-common among the muggentes and & carlines and other sheller near the Mays Rever. They are less museur our most of the plain. Try are as a rule rather rusus Pleis onca, Fr a few occur in the Joothills and do great damage by billing cattle and horses. Usually stant only from one to two or three time any one leveably and they usually more about a quest charge frequently from one place to another and the same tigin may kell an annal oud en one place en must day kell another five order mules away, I spent considerable time trying to secure a specimen hue fut every effort resulted un Jailine. They are said to take poison readily in most cases and are often hunted and pilled with dogs, I was assured that they do not as a rule laste to a tree when pursued by dogs but keep going at a steady walk

Camoa. meanwhile Jighting the dogs, One morning I followed a trail made by a tiger the myses defore down the Bed of an amongo, The annal stopped at Juguent internals to sociated and make a little exervation among the Seaves, These excavations were smooth on the bollows and ded not have the appearance of having Lunmade Try the animals claws but by the paws with the claws sheathed, I was told by the natives that this was a common habit of the annual and also what who frequently choose the Ted of an anoyo alto although travel along the side, The tegins stay in the Josepheles in the section and selden a never go out upon the coast plain. Helis (13259) Tiger cats are router common in the foothells near Camoa, Most of the specimens suit I poisoned while begging to porom a tiger, Felix concolor. a few occur in the footbulls and are like the tiger destructive to cattle and horses on the stock ranges, The natives describe two varieties one which seems to be the ordinary one and The other sand to be slenderer m' body, of a yellowest color with Hack ears, muzzle and Hack-

Camoa, toped tail, I was also assured that the latter variety was much more couragious than The former, The local name The former variety frost mentioned is ealled leon' and the second onza" Felis (3271) The Fyry is rather common and generally dishibuted dock on the plains The Mayo, name for the animal is Buaslabo". The mexicans call it gato poche" (bot cut) Canis latians (3866), Sule-common on the plains and on the lower slopes of the Footballs, They do enviduath damage by killing shepard goats, Faid to occur Reener spangly. Mephitis (3198), abundant Judging from the Jacitely- week I seemed specimes from the Mays wdians, The whow hunted them for me ne moonlegat nights. They use a long tole slender stick as on such occasions The Akunh are not sky they malfor are easily overlaken they deliberatily knock the skunk down and Fefre he cando un some cases defore the animal could recover. they pounced upon et and brought it in to me alive, The indians call skunks Jupa" and

Camoa. do not appear to destinguist between Mephilis and Conepatus, Common as preceding. all of the Specimens latin muce capting For me by the undraws along the Mayo river. Varidea (13217) Racher Common on the plans near Comoa and up on the lower slopes of the Joothello. One day while uding along a trail in the Joothills near leamon I van a badger cross about 30 yds. un front of me. I munidiately spund my horse after them and after running about 20 yds. he Sunow but instead of zoing at once to the Fottom he lumined and remained with his face towards me, looking out of the hole. I checked my horse and whot him defore he divided to leave tho entrance. Mayo undran name "Juni" according to the molions the badgers time kell and eat a great many suchos raule suakes, Occurs o paningly Procym along the Mays Run Mays undean name matufari" Glasna nanca (13415) Ocens spaningly in the hells near Teamoa, Tocal name cholugo" (13/70) Long-land bet.

Many of these bats were found leving un an old house, (13407) Jmall Bot. Shot flyng one evening near teaman, lepacala Tehacala, Durango, My, Feb. 24 st & Mar. 7 1 1899. alt about 3000 gt. Didelphys (3456), Common and well dishibuted. Galund novements, Said to be not muconinge, Marmora Prossums belongug to this gemes are said to occur in very small numbers, They make nexts which are placed among the leaves of the sugarcane, Jananas and un hollow logs and hus. Talusia novementa, Said to de not uncommon.

Diestyles tajacu (3458), Beter Sail

to be nothing common in the less

frequential parts of the hells

Chacala. near Chacala. Odocoileus (3457) Not macommon to the me the dense thefuts on most of the hels near Chacala but very well and hard to seeme, Seums (13460), Found rather spaningly in the hot country man Below Chaeala and ranges up among the lower oaks near the Spermophilis macronus de in small numbers in the hot country below tehacala where they live along stone walls and about large rocks on hell plopes. (3479) Occurs Heoloma spanigly about the rocks. among the ook above Chaeola. Kuthrodonlowys (3438), Not uncommon in the weed patches along the Fordus &) ongar come Jules. Signodn (3433), Saile-Common in same places as preceding species and make well defined runnays, through the gross and Veronyseus (13468), Oceus spanigly in the oak woods near the rocks and bases of large him, Thomorny (3485), Oceus spangly among the oaks near Chaeola but is more common

Chaeala on the slopes of the hells in the hot country below wherever the soil is dup and loose, Heteroning (13435), Not rencommon and well distributed from the lower edge of the oaks down nuts the hot country, Elswally later in Thickets or among the rocks in langled paleties of weeds and vines on hell slopes. Perognathus (3437), appeared to be nother scarce along the lower edge of the oaks near Checala dut are no doubt common lower down I found levering un the weed paleties in and around the cane quelds gipus bottenlares occur Dut are very searce and at the season of the year seldom seen. Heles mea, Occurs & panyly Helis concolor, a fur are sond to occur. Pelis (spotted), Tiger cats occur un small numbus, - (lyny). Oceus open ungly. Comis lahans, Sand to occur spangly, (13474), 200 & unevenuon Grocyon Que of the openium sent in was Lutia Ory dogs offin a long chase. Tuta Ollius occum in small numbers in The sheams

Charala which flow down the slopes near Chacala, Proceson, Proces of como were seen near bhaeala, Rasura (3459), Ractus common and well distributed every. where below the lower edgest The vake, Mually seen in swall parties usually very early m the morning or late in the evening They Jud largely on the June & the weld Jig his particularly stop plant ors' 355 locally known as chalate! (13493) Tot with pouled ears.) A few were token un an old mur rear Charala. (3497) (Small yellow bat) Nice very abandant un same old mine as puedent species. (13522) Bet, longeared) a few were found living in the same cave as the preseding species. (13530)/Bot, small, leaf mas noved) Ving abundant un Dance of mune as 20. 13493. Desmodus (13489) a suple young undividual was pulled un the same nume of 20/3493.

· Centralan. Cuhacan, Smalon, Mujes. Mar, 11 to 26 1/899. Didilphys (Hack) (3589) a single spelimen was laught in a hap set on the rank of the Vamagula nun. 21 was an old male, and he was in a very savage mood when I approached The hap in the morning. He ded not posserin" at all But but at sweighting weeking reach and Froke some of his leeth undeting the hap, This species is no dout common. Mannova (3574) a pygny possum was laught in a mouse traps set under a rock among the lowest Josthills. Palmeré novementa, fant to occur and Probably not uncommen a hunter 2 employed reported having helled one while hunting one day while I was at leuharan. Diestyles lajaen , Laid to occur poothiels back of the lown, Odocorlens Jun our satur spang are not messummen on the Jelans and un the foother Fack of Cenhacan, They are Jone of the flowers of the morning glory hie and when these his are Howing one of the Javorihways the natures hunt due is to search for them where

Conhacan even the falling Howns are plenhful. Semus Ocens very spanningly near in the low footbills near teuleacan. Spermophelus macroury, teomun and well distributed. They live in holes which entir the ground along Junes, under his and even sometimes very near houses. Restonia decus spanngly in the footbills. Peromyseus (3566) (Small brown) leeus spaningly un weed paleties along the nous near, the lown. (13575) Foot to Peromysous Recurs rather spaningly about rocks on the slopes of the lowers Tigmodon (13556), a Jun are found in weed paleting in Julds along The nums near Euliaean. Kurthrodoulonys (3579), a few are found in the same places as the puculing spieurs. Thomonys a few occurs on the slopes and along the Dave of the lower foothiels. no signs of them were sun on the plans near Eubaran. (13557) Part Heleromys uncommon in the weedpatester in Juldo along the ween man Culacan sid wastloting

Cubacan. Perognather (13565), Hot meonmon along brush Junes and in theepets on the higher ground back from the numer near the Town. Perognathus (13572), This The smaller species appeared to be most abundant un the loose sandy soil, much the munes. council with a thin growth. of gross and weeds, near the rows, Hepus (13573), Jack rathets occur sparingly on the plans near the lown. Tepus (13598), Oleun near the rown. Telis onea. Said & ocean un small numbers un the hells, Felis concolor. a few occur un the __ (lyng, Said to occur on the Jelamo. Filis Spotted train cator
se not uncommon
and to seem in small mundos antho plane un this Carris lahaws, Rather common on the planes. Fard & oven. Eliocajon Proeyon a few hacks were seen along the run, Hasua nanca, Kartus Comman in Nhe hells

Culacan Ryctenoming (13583), The specimen sent un was the only one sun, 2t was caught in the house one evening. Near Mayartan, Mar 30 to apr, 12 Didelphys (13632) (Whele-sp.). teaught in a hap set near, The base of one of the hells. Didlphys (13650) (black of) Common. (13658) a spermen Marmora Trought to me alive was very savage and anyous to Fele my Jugues. When hardled the ears were curled our fackward en same manne that the common Didelphys curls them much pumlar circumptances, Talvara novumeneta, Land to ocen. Dacolylas tajacu. not un commun

un the hells near Mazarlan.

Hear Mazailan. Odococleus. Den seenrather spaningly both in the near the coast. Jenns (13653), Ocens on the slopes of the hiels, I found them Juding to some estimp on the large yellow flowers of a two which at this season has no leaves, They are rather weld and usually try to excape by running and jumping rapidly from the to the. Acoloma (13660) Ocemo way sparingly about the rocks on the sloper of the hells. No signs were sun of peles of steeks or numora. The untrances to the Burrows and holes which enter the ground around the rocks. Peromyseus and 3617), Occurs and Joses of his of the slopes of the helbs, and about the bases of large true and along the banks of anoyor on the plan. Ruthodontonys (13640), a few seems along truth Jences and among the gross and weeds in cultivated fields. Thomomys (13633) Ocems Spanger on the slopes of the low hele and on the namous plane near the coast. Helionings (3615), Occurs rather spangly in the fills, They are most abundant on

slopes on which the truster has Sun earl and that have plunts of Frust and weeds are Journel. Perognathus (13616). Found outer spaningly foots on the olopers Fepus (3629) (colloutent). a large spieres is found in small numbers in the forests on the Topus (Jack), Said & occur very spaningly on the most The plains. Felis ones Occurs But is very Felis concolor, Said & ocen my spannight in the Tulls. - Tyntes occur in omall number, Filis Spotted tiger Calls are said & ocean rather Carris & Coyotas seem spanger. a Jun an llocyon found. Procyon (3623), Duchcommon along the edges of the lagoons and also occur in the Nasura nania, Faid & ocem m thotalls, Faceoplingy (3624) The specimen lakers was shot while Hying about the one every. (Bat) (13626) a for much found in an old mine

Balamotal. Balamotal. Tonora, apr. 20-27th Dicolytes tojacu, a Juvane said to occur in the hells. Odococleur, Den ocen spangly un the hells, Spennophelies macronnes, a few occur in the hells, Spennophilus (3678). Roj mesmun on the plans near Balamotal, Jamy the warmer tours of the day Habets similar & those of Spennophelis everywhere. Dung the warmer hours of the day they come out and motte about for food and of the slightent alone dart of to their holes at The does not appear very near and monally do not enter at once unless further alauned. Heoloma (13705), Ocens rather spanningly in thick paleties of cachines and thorny fushes on the plain They Fueld large dome shaped nexts over The Jurious and also muse nests of streks up among the Franches of thorny his and skubs, Well worm mungs lad out from the Francis and often count what appeared formers. (13686), Oerus ving spannight on the rocky hells. (13669) Rot Depodomys

Balamotal. sandy parts of the plain boundly the holes enter the ground among Justes or near the Janes of should, beach annual appears to make several holes and well worn munays lead out from them in various directions. Perognathus (13675), Rather common over the more parely parts of the plans near Balamotal. Tepus (13693). Nouva racher spannigly over the planes. Those seen me had the same curious habet of exproving thewhile on Hanks as the species found faither south of Comoa. Lepus . (13685) A small species is not uncommon on the plains. They favor sections in which the choyes and other castures assering abundant. Felis Tymps are said to occur spanigly. a few coyolis occur. Thocyon Fotes occur spanngly. Said Eoccur on Varidea che plans a Juv hacks were Procyon The shows of the pen near lagoon. (13706), The specimen Bat/___ out me was the only one sun. It was shot in a cave in The Triels.

Ceasas Frandes. Casas Francis, Epihuahua, Mepes, May 12th & June 10 1. alt. 4300 gt. Didelpys an opossum es Odocoilus Blacktaile den from the By station within two or there years but are now scarce in all this Odocoilens Whitelailed dues are very abundant occording to reports rin the Suna Madre and a few occur in the footbills near leasas Groudes. antilocopia and some large caule ranches about 45 miles n. 20. 80 Copas fravdes. A few ocens in the hills near the lown but they are very scarce and said to be very wild said to be very weld. Over nelsoni, Sand & oceur very sparwyly in some of the higher and morte lugge of the odnew hells along the R.R. Deliver bindad Juany and El Pako particularly near Juzman. bynomy a colony is said to be found near on the plain near the leavas Grandes run about ten miles Spennophilus macronnes. a Junocun on the rocky slopes of the low Farren usually live under the valley They rocks to live under the skeller glage rocky T Spennophelus (13719), Decurs racher spanned on the planes They are most abundant in the meguile. cound area 40 5 miles last of the Ry. slation. (13714), lecus raihes Ohychornys spannyly in the meganti count dua of plain a Jud miles east of the Ry station, Relitedouloungs (13717) Decurs grass near the niver and among the gross on the plain. not uncommon amor the saccalar grows along the river where they make mining among its gross. They were rather hard to eater and only one specimeny plain also, in places where the gross grows unusually thick, very ofpanish among the rocks and brush on the dry stokes of the hells. Peromyseus (13771) (white-fooled) not uncommon along the min whrever there are thick grows and weed patchers. The only specimen laken was caught among Peromyseus The saccalon gross near the rule. (13738), Ocens rather Thomomys spanigly but is generally lestubulted own the plain.

Casas Gravdes. Depodorup opectabelis (13708). Very common and well distributed on the plain It impossible to cross the plan in any direction without meeting with dozento of the conspicuous mounted of earth of made by this species Depodomys (3709) Not uncommon in the meganile covered area a few miles east of this Ry, station, Their holes are usually one two or their in much and enter the ground mean the Fores of Furches of she quiles. (13720), Occurs opaning in some setuations and has habits bimber Perognathus (13747), Found rather sparingly among the saccalor gross along the rain. They live in holes which often um nearly totaget down the bunches of gross and have flu a won place leading out for a Jobt or two from the enhance. Perognathus (13745) Deems spaningly among the rocks on the slopes of the barren tills Forling the valley Perognathus (18750). The ruly spectrum latin was caught among the running The saccalon grass along the running Gepus tesiamus: (13727), Flank sided) Jackrassito are very numerous in the area plain covered with musel my queles a few mules east of the Ry, station. Tipus allen ! Ish Helson Raus duning a ride own the plan near the nun, severa whe is seded jackesthets along the num and un the mer quite could are a fur miles east of the station. They hide during the day denong the thick Bunches & mezqueles and when durin out often munioto holes in the ground Pelis (lynn) a Juvair said Camis Coyoles occur spannyly on the plain and in the tills Elrocyon and tracky were sum along the river (13777) Mephilis. Probably not hopes set along the river Sand & seem on The Taxidea

